

Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name: Kentucky Mountain Power, LLC
Mailing Address: 2810 Lexington Financial Center, Kentucky 40507

is authorized to operate an
electric power generating plant at Knott County, Kentucky

Source Name: Kentucky Mountain Power, LLC
Mailing Address: 2810 Lexington Financial Center, Kentucky 40507
Source Location: 6626 West Highway 80
Talcum, KY 41722

Permit Type: Federally-Enforceable
Review Type: Title V/PSD

Application
Complete Date: June 15, 2000
Permit Number: V-00-045

Log Number: 51410

AFS Plant ID #: 21-119-00037
SIC Code: 4911

Region: Appalachian
County: Knott

Issuance Date: May 4, 2001
Expiration Date: May 4, 2006

John E. Hornback, Director
Division for Air Quality

TABLE OF CONTENTS

<u>SECTION</u>		<u>DATE OF ISSUANCE</u>	<u>PAGE</u>
SECTION A	PERMIT AUTHORIZATION	May 4, 2001	1
SECTION B	EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	May 4, 2001	2
SECTION C	INSIGNIFICANT ACTIVITIES	May 4, 2001	24
SECTION D	SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	May 4, 2001	25
SECTION E	SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS	May 4, 2001	27
SECTION F	MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS	May 4, 2001	28
SECTION G	GENERAL CONDITIONS	May 4, 2001	31
SECTION H	ALTERNATE OPERATING SCENARIOS	May 4, 2001	37
SECTION I	COMPLIANCE SCHEDULE	May 4, 2001	38
SECTION J	ACID RAIN PERMIT	May 4, 2001	39

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on June 16, 2000 (including revisions submitted through Addendum #6), the Kentucky Division for Air Quality hereby authorizes the construction and operation of the processing and air pollution control equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any emissions units without having first submitted a complete application to the permitting authority and received a permit for the planned activity, except as provided in this permit or in Regulation 401 KAR 50:035, Permits. Any modifications made to the affected facilities addressed in this permit that would require a permit pursuant to 401 KAR 50:035, Permits, shall not be made without first having submitted a complete application to the permitting authority and received a permit for the planned modifications.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01 and 02 Circulating Fluidized Bed Units #1 & #2

Description:

Circulating Fluidized Bed Units, coal refuse and coal fired unit
Equipped with baghouse, NIDS - natural integrated desulfurization system, and SNCR
Number two fuel oil or natural gas used for startup and stabilization
Nominal rating 2,550 MMBTU/hour each
Construction Commence Date: estimated January 2001

Applicable Regulations:

The following regulations, as in effect at the time of permit issuance:
Regulation 401 KAR 59:016, New electric utility steam generating units incorporating by reference 40 CFR 60, Subpart Da, Standards of performance for electric utility steam generating units applicable to an emission unit with a capacity of more than 250 mmBTU per hour and commenced on or after September 19, 1978.
Regulation 40 CFR 60, Appendix F, Quality Assurance Procedures
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.
Regulation 40 CFR Part 75
Regulation 40 CFR Part 70

1. Operating Limitations:

None

2. Emission Limitations:

- a) Pursuant to Regulations 401 KAR 59:016, Section 3(1)(b), and 401 KAR 51:017, particulate emissions shall not exceed 0.015 lb/MMBTU heat input from each unit based on a three-hour average. Pursuant to Regulation 401 KAR 59:016, Section 6(1), compliance with the 0.015 lb/MMBTU emission limitation shall constitute compliance with the 99% reduction requirement contained in Regulation 401 KAR 59:016, Section 3(1)(b).
- b) Pursuant to Regulation 401 KAR 59:016, Section 3(2), emissions from each unit shall not exceed twenty (20) percent opacity based on a six-minute average except that a maximum of twenty-seven (27) percent is allowed for not more than one (1) six (6) minute period per hour.
- c) Pursuant to Regulations 401 KAR 59:016, Section 4(1) and 401 KAR 51:017, sulfur dioxide emissions shall not exceed 0.13 lbs/MMBTU from each unit based on a thirty (30) day rolling average.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- d) Pursuant to Regulations 401 KAR 51:017, carbon monoxide emissions shall not exceed 0.27 lbs/MMBTU from each unit based on a thirty (30) day rolling average.
- e) Pursuant to Regulations 401 KAR 51:017, nitrogen oxides emissions shall not exceed 0.07 lbs/MMBTU based on a thirty (30) day rolling average. The NO_x emission limit is waived for the specific SNCR optimization study activity as detailed in Section D (2, 3 and 4). Should the optimization study indicate that 0.07 lbs/MMBTU is unachievable, then a significant revision to the permit will be required.
- f) Pursuant to Regulations 401 KAR 51:017, VOC emissions shall not exceed 0.0072 lbs/MMBTU from each unit.
- g) Pursuant to Regulations 401 KAR 51:017, fluoride emissions shall not exceed 0.0053 lbs/MMBTU from each unit.
- h) Pursuant to Regulations 401 KAR 51:017, lead emissions shall not exceed 0.000194 lbs/MMBTU from each unit.
- i) Pursuant to Regulations 401 KAR 51:017, mercury emissions shall not exceed 0.000081 lbs/MMBTU from each unit.
- j) Pursuant to Regulations 401 KAR 51:017, beryllium emissions shall not exceed 0.0000217 lbs/MMBTU from each unit.
- k) Pursuant to Regulations 401 KAR 51:017, sulfuric acid mist emissions shall not exceed 0.010 lbs/MMBTU from each unit.
- l) Pursuant to Regulation 401 KAR 59:016, Section 6(3), particulate matter and nitrogen oxides emission standards apply at all times except during periods of startup, shutdown, or malfunction. The sulfur dioxide emission standard applies at all times except during periods of startup, shutdown, or malfunction.

3. Testing Requirements:

- a) The permittee shall demonstrate compliance with the applicable emission standards within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility. Opacity data from the Continuous Opacity Monitor (COM) during the performance test for particulate shall be correlated with the particulate emissions rate to establish an average opacity level pursuant to Condition 4.b below.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- b) If no additional stack tests are performed pursuant to Condition 4.b, the permittee shall conduct a performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the allowable standard.
- c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 annually, or more frequently if requested by the division.
- d) See Section D

4. Specific Monitoring Requirements:

- a) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7 and Regulation 401 KAR 59:005, Section 4, the permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions and either oxygen or carbon dioxide emissions. Oxygen or carbon dioxide shall be monitored at each location where sulfur dioxide or nitrogen oxides emissions are monitored. The owner or operator shall ensure the continuous emission monitoring systems are in compliance with the requirements of Regulation 401 KAR 59:005, Section 4.
- b) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7(1), to meet the periodic monitoring requirement for particulate, the permittee shall use a continuous opacity monitor (COM). The average opacity level determined pursuant to condition 3.a above, plus 5% opacity will become the opacity trigger level. Excluding the startup, shut down, and once per hour exemption periods, if any six minute average opacity (averaged over a period of 3 hours) value exceeds the opacity trigger level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs. If five (5) percent or greater of COM data (excluding startup, shut down, and malfunction periods, data averaged over a three hour period) recorded in a calendar quarter show excursions above the opacity trigger level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by condition Section G(a)(20) of this permit before conducting the test. The division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance Tests.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

c) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7(1), to meet the periodic monitoring requirement for opacity, the permittee shall use a continuous opacity monitor (COM). The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment and make any necessary repairs. If no visible emissions, which would trigger Reference Method 9 determinations or equipment repairs, are observed during any six consecutive week period, the frequency of observation may be reduced to weekly. Observations shall revert to daily if visible emissions, which would trigger Reference Method 9 determinations or equipment repairs, are observed during any weekly observation. Daily observations shall continue until such time that no visible emissions, which would trigger Reference Method 9 determinations or equipment repairs, are observed during any three consecutive week period.

d) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7(2), to meet the periodic monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 30 day rolling average sulfur dioxide value exceeds that standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the CEM system and make any necessary repairs as soon as practicable.

e) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7(3), to meet the periodic monitoring requirement for nitrogen oxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 30 day rolling average nitrogen oxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or CEM system and make any necessary repairs or take any corrective actions as soon as practicable.

f) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 51:017, and Regulation 401 KAR 59:016, Section 7(2), the permittee shall monitor sulfur dioxide emission using a continuous monitoring system.

g) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7(5), all the continuous emission monitoring systems shall be operated and data shall be recorded during all periods of operation of the emissions units including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

h) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:016, Section 7(6), when emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, the permittee shall obtain emission data by using other monitoring systems as approved by the division or the reference methods as described in Regulation 401 KAR 59:016, Section 7(8) to provide emission data for a minimum of eighteen hours in at least twenty-two out of thirty successive boiler operating days.

i) Pursuant to Regulation 401 KAR 59:016, Section 7(9), the following procedures shall be used to conduct monitoring system performance evaluations and calibration checks as required under Regulation 401 KAR 59:005, Section 4(3).

1. Reference Method 6 or 7, as applicable shall be used for conducting performance evaluations of sulfur dioxide and nitrogen oxides continuous emission monitoring systems.
2. Sulfur dioxide or nitrogen oxides, as applicable, shall be used for preparing calibration mixtures under Performance Specification 2 of Appendix B to 40 CFR 60 filed by reference in Regulation 401 KAR 50:015.
3. The span value for the continuous monitoring system for measuring opacity shall be between sixty (60) and eight (80) percent and the continuous monitoring system for measuring nitrogen oxides shall be 1,000 ppm.
4. The span value for the continuous monitoring system for measuring sulfur dioxide at the inlet to the sulfur dioxide control device shall be 25 percent of the maximum estimated hourly potential emissions of the fuel fired, and at the outlet of the control device shall be 50 percent of the maximum estimated hourly potential emissions of the fuel fires, or span values as specified in 40 CFR 75, Appendix A.

j) The permittee shall take a grab sample of the fuel "as fired" to the CFB on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine Lead, Beryllium, Mercury, and Fluoride content. The samples taken on a quarterly basis shall also be analyzed to determine the hazardous air pollutant content. This data, along with the baseline data established during the initial compliance test, shall be used to demonstrate compliance with the emission limits for these pollutants. Depending on the results of the quarterly tests, additional steps may be required to ensure that applicable hazardous air pollutant content emission limits are not exceeded.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

5. Specific Record Keeping Requirements:

- a) Pursuant to Regulation 401 KAR 59:005, Section 3(4), the owner or operator of the indirect heat exchanger shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.
- b) Pursuant to Regulation 401 KAR 59:005, Section 3(2), the owner or operator of this unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.
- c) The permittee shall compute and record percentage of the COM data (excluding startup, shut down, and malfunction data) showing excursions above the opacity trigger level in each calendar quarter.
- d) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

- a) Pursuant to Regulation 401 KAR 59:005, Section 3(3), minimum data requirements which follow shall be maintained and furnished in the format specified by the division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:
 - 1) The magnitude of the excess emission computed in accordance with the Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - 2) All hourly averages shall be reported for sulfur dioxide and nitrogen oxides monitors. The hourly averages shall be made available in the format specified by the division.
 - 3) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

- 4) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- 5) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- 6) For sulfur dioxide and nitrogen oxides, all information listed in Regulation 401 KAR 59:016, Section 9(2)(a-i) shall be reported to the division for each twenty-four (24) hour period.
- 7) If the minimum quantity of emission data as required by Regulation 401 KAR 59:016, Section 7(6)(a-e) is not obtained for any thirty successive boiler operating days, the permittee shall report all the information listed in Regulation 401 KAR 59:016, Section 9(3) for that thirty day period.
- 8) If any sulfur dioxide standards as specified in Regulation 401 KAR 59:016, Section 4(a and b) are exceeded during emergency conditions because of control system malfunction, the permittee shall submit a signed statement including all information as described in Regulation 401 KAR 59:016, Section 9(4).
- 9) For any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the permittee shall submit a signed statement pursuant to Regulation 401 KAR 59:016, Section 9(6) indicating if any changes were made in the operation of the emission control system during the period of data unavailability. Operations of control system and emissions units during periods of data unavailability are to be compared with operation of the control system and emissions units before and following the period of data unavailability.
- 10) The permittee shall submit a signed statement including all information as described in Regulation 401 KAR 59:016, Section 9(7).
- 11) Pursuant to Regulation 401 KAR 59:016, Section 9(8), for the purposes of the reports required under Regulation 401 KAR 59:005, Section 4, periods of excess emissions are defined as all six (6) minute periods during which the average opacity exceeds the applicable opacity standards as specified in Subsection 2 of this section. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the division each calendar quarter.
- 12) The permittee shall report the number of excursions (excluding startup, shut down, malfunction data) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS**

7. Specific Control Equipment Operating Conditions:

- a) The CFB, baghouse, SNCR, and NIDS shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) A compliance demonstration for the NIDS, natural integrated desulfurization system, must be completed within 180 days of start-up. If compliance with the 0.13 lb/mmBTU sulfur dioxide emissions limit is not met within this initial compliance period, operations at the facility must be suspended until all necessary modifications to control equipment are completed. During this period, the facility can be in operation only for the purpose of demonstrating compliance.
- c) Sulfur dioxide emissions (in pounds) will be calculated monthly based on CEMS data. If the total of the sulfur dioxide emissions exceeds the maximum allowable for any consecutive six month period, operations at the facility will be suspended until all necessary modifications to control equipment are completed. During this maintenance period, the facility can be in operation only for the purpose of demonstrating compliance.
- d) Records regarding the maintenance of the control equipment shall be maintained.
- e) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 03 Bottom Ash Handling System

Description:

Bottom Ash Silos - two

Control Equipment: Baghouse

Operating Rate: 282 tons/hour

Construction Commenced Date: estimated January 2001

Applicable Regulations:

Regulation 401 KAR 59:010, New Process Operations

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

None

2. Emission Limitations:

Pursuant to Regulation 401 KAR 51:017, the permittee shall not cause to be discharged into the atmosphere from any of the above mentioned emissions units gases which exhibit twenty (20) percent opacity or greater, and each above mentioned emission unit shall be controlled by baghouse with a design control efficiency of at least 99.9%.

3. Testing Requirements:

Pursuant to Regulation 401 KAR 59:010, the permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 annually, or more frequently if requested by the division.

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the 20% opacity standard (averaged on three 6 minute readings), the permittee shall determine the opacity of emissions by Reference Method 9 and if the 20% opacity standard is exceeded, the permittee shall initiate an inspection of the control equipment for any necessary repairs.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS**

5. Specific Record Keeping Requirements:

- a) The permittee shall maintain the records of amount of ash processed.
- b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a) The baghouses shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) Records regarding the maintenance of the control equipment shall be maintained.
- c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 04 Fly Ash Handling System

Description:

Machine Point 01 Fly Ash Silos - 2
Machine Point 02 Fly Ash Vacuum Discharge - 2

Control Equipment: Baghouse
Operating Rate: 330 tons/hour – Machine Point 01 and 02
Construction Commenced Date: estimated January 2001

Applicable Regulations:

Regulation 401 KAR 59:010, New Process Operations
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

None

2. Emission Limitations:

Pursuant to Regulation 401 KAR 51:017, the permittee shall not cause to be discharged into the atmosphere from any of the above mentioned emissions units gases which exhibit twenty (20) percent opacity or greater, and each above mentioned emission unit shall be controlled by baghouse with a design control efficiency of at least 99.9%.

3. Testing Requirements:

Pursuant to Regulation 401 KAR 59:010, the permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 annually, or more frequently if requested by the division.

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the 20% opacity standard (averaged on three 6 minute readings), the permittee shall determine the opacity of emissions by Reference Method 9 and if the 20% opacity standard is exceeded, the permittee shall initiate an inspection of the control equipment for any necessary repairs.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS**

5. Specific Record Keeping Requirements:

- a) The permittee shall maintain the records of amount of ash processed.
- b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a) The baghouses shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) Records regarding the maintenance of the control equipment shall be maintained.
- c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 05 Limestone Prep System

Description:

Machine Point 01	Limestone Truck Dump
Machine Point 02	Vibrating Feed & Conveyor
Machine Point 03	Surge Bin #1
Machine Point 04	Surge Bin #2
Machine Point 05	Limestone Day Silos – 2

Control Equipment: Baghouse - Machine Points 03, 04, 05

Baghouse and Enclosure for Point 01 and 02

Operating Rate: 150 tons/hour – Machine Point 01 and 02

110 tons/hour – Machine Point 03 and 04

220 tons/hour – Machine Point 05

Construction Commenced Date: estimated January 2001

Applicable Regulations:

Regulation 401 KAR 60:670, incorporating by reference 40 CFR 60 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

None

2. Emission Limitations:

- a) Pursuant to 401 KAR 51:017, emissions of particulate shall be controlled by a baghouse with a design control efficiency of at least 99.9%
- b) Pursuant to 401 KAR 60:670, emissions of particulate shall not exceed 0.05 gr/dscm and shall not exhibit greater than 7% opacity.

3. Testing Requirements:

- a) Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the owner and/or operator shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, annually.
- b) EPA Reference Method 5 or Method 17 shall be performed as required by the Division to determine particulate matter concentration.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

5. Reporting and Recordkeeping Requirements:

- a) Reporting and Recordkeeping shall be done in compliance with the requirements contained within 401 KAR 60:670.
- b) Records of the limestone processed (tonnage) shall be maintained.
- c) See Section F, Conditions 5, 6, 7 and 8.

6. Specific Reporting Requirements:

Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.676, the owner and/or operator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of opacity observations made using EPA Reference Method 9.

7. Specific Control Equipment Operating Conditions:

- a) The facilities and baghouses shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and / or standard operating practices.
- b) Records regarding the maintenance of the control equipment shall be maintained.
- c) See Section E for further requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS**

Emissions Unit 06 Limestone Mill Dryers

Description:

Machine Point 01	Mill/Dryer #1
Machine Point 02	Mill/Dryer #2

Control Equipment: Baghouse
Nominal rating 10 MMBTU/hour each
Natural Gas Fired
Low NO_x burners
Construction Commenced Date: estimated January 2001

Applicable Regulations:

Regulation 401 KAR 60:670, incorporating by reference 40 CFR 60 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

None

2. Emission Limitations:

- a) Pursuant to 401 KAR 60:670, emissions of particulate shall be controlled by a baghouse with a design control efficiency of at least 99.9%
- b) Pursuant to 401 KAR 60:670, emissions of particulate shall not exceed 0.05 gr/dscm and shall not exhibit greater than 7% opacity.

3. Testing Requirements:

- a) Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the owner and/or operator shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, annually.
- b) EPA Reference Method 5 or Method 17 shall be performed as required by the Division to determine particulate matter concentration.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

5. Reporting and Recordkeeping Requirements:

- a) Reporting and Recordkeeping shall be done in compliance with the requirements contained within 40 CFR 60.676.
- b) Records of the limestone processed (tonnage) shall be maintained.
- c) See Section F, Conditions 5, 6, 7 and 8.

6. Specific Reporting Requirements:

Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.676, the owner and/or operator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of opacity observations made using EPA Reference Method 9.

7. Specific Control Equipment Operating Conditions:

- a) The facilities and baghouses shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and / or standard operating practices.
- b) Records regarding the maintenance of the control equipment shall be maintained.
- c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 07 Coal Prep System

Description:

Machine Point 01	Coal Truck Dump - 2
Machine Point 02	Primary Crushers - 2
Machine Point 03	Conveyor Drop Points 1 & 2, 2 Belts Each
Machine Point 04	Coal Storage Piles
Machine Point 05	Coal Convey – 2 Belts
Machine Point 06	Coal Crusher Tower – Crusher, 2 Belts
Machine Point 07	Fines Bunker Convey
Machine Point 08	Coal Convey – 2 Belts
Machine Point 09	Coal Transfer Hopper & Coal Silo Vents

Control Equipment: Enclosures and Baghouse (Machine Points 01, 02, 05, 06, 07, 08, 09)

Chutes, Enclosures and Baghouse (Machine Point 03)

Compaction for 5-10 Day Inactive Storage (Machine Point 04)

Operating Rate: 1400 tons/hour – Machine Points 01, 02, 03, 04, 05, 06, 08, 09

700 tons/hour – Machine Point 07

Construction Commenced Date: estimated January 2001

Applicable Regulations:

Regulation 401 KAR 60:005, which incorporates by reference 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

Applicable Requirements:

1. Operating Limitations:

None

2. Emission Limitations:

- a) Pursuant to 40 CFR 60.252, the owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.
- b) Pursuant to 401 KAR 51:017, the baghouses and enclosures utilized shall exhibit a design control efficiency of at least 99.9%.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

3. Testing Requirements:

Pursuant to Regulation 401 KAR 60:254, the permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 annually, or more frequently if requested by the division.

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a daily basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

5. Specific Record Keeping Requirements:

- a) The permittee shall maintain the records of amount of coal received and processed.
- b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

- a) The enclosures, baghouses, and telescopic chutes shall be operated as necessary to maintain compliance with applicable requirements, in accordance with manufacturer's specifications and/ or standard operating practices.
- b) Records regarding the maintenance of the control equipment shall be maintained.
- c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Unit 08 and 09 Cooling Tower #1 and #2

Description:

Control Equipment: 0.01% Drift Eliminators

Operating Rate: 172,000 GPM each

Construction Commenced Date: estimated January 2001

Applicable Regulations:

Regulation 401 KAR 63:010, Fugitive emissions

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

Applicable Requirements:

1. Operating Limitations:

Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations:

- a) The cooling towers shall utilize 0.01% Drift Eliminators
- b) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

None

5. Specific Record Keeping Requirements:

- a) The permittee shall maintain the records of manufacturer's design of the Drift Eliminators.
- b) The permittee shall maintain records of water circulation.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS**

7. Specific Control Equipment Operating Conditions:

- a) The Drift Eliminators shall be operated in accordance with manufacturer's specifications and/or standard operating practices.
- b) See Section E for further requirements

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit LS Haul Roads

Applicable Regulations:

Regulation 401 KAR 63:010, Fugitive emissions

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

Applicable Requirements:

- a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, or other surfaces which can create airborne dusts.
- b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.
- c) Pursuant to Regulation 401 KAR 51:017, all haul roads shall be paved.

1. Operating Limitations:

Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne

2. Emission Limitations:

Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

None

5. Specific Record Keeping Requirements:

The permittee shall maintain the records of amount of coal and limestone received and processed.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS,
AND OPERATING CONDITIONS**

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

See Section E for further requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant, the permittee must comply with the applicable regulation(s). Process and emission control equipment at each insignificant activity subject to a generally applicable regulation shall be inspected weekly and a qualitative visible emissions evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and corrective actions taken for any abnormal visible emissions.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Standby Battery Charger	None
2. Fire Water Pump	None
3. Maintenance Shop Activities	None
4. Fuel Oil Storage Tanks	401 KAR 59:050
5. Space Heaters for Comfort Heating	None
6. Miscellaneous Water Storage Tanks	None
7. Miscellaneous Steam Condensate Tanks	None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 1) PM₁₀, sulfur dioxide, nitrogen oxides and visible (opacity) emissions, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
- 2) The permittee shall install, operate and optimize a Selective Non-Catalytic Reduction (SNCR) System for the reduction of NO_x emissions from Boiler #1 and #2. The optimization study must begin no more than 6 months after operation. Sixty days prior to initiating the study, the permittee shall submit a detailed optimization protocol for division approval including the specific dates of the optimization study and the boiler operation conditions to be tested.

The optimization study shall monitor and record, but not be limited to, the following items:

1. reagent injection rates
2. boiler NO_x prior to injection
3. Reagent injection to boiler NO_x ratios
4. Boiler temperature
5. CO and SO₂ levels prior to injection
6. Boiler load in MMBTU/hr and percent of rated capacity
7. Steam generation rate
8. Bed calcium to sulfur ratios
9. Fuel type, percent ash, and percent sulfur
10. NO_x emission rate
11. SNCR NO_x emission reduction in percent
12. Ammonia emission rates, and
13. Opacity

This information shall be collected or calculated hourly during the study unless otherwise specified in the protocol to be submitted by the permittee as approved by the division. In addition at least three separate visible emission tests shall be conducted for each set of operating/injection conditions identified for the study.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- 3) The permittee shall complete a study for each CFB to determine the optimized performance of the SNCR system within 18 months after the initial startup date. The Kentucky Division for Air Quality shall have 60 days to review the optimization study. Should the optimization study indicate that 0.07 lbs/MMBTU is unachievable, then a significant revision to the permit will be required. The nitrogen oxide emissions rate shall never exceed 0.10 lbs/MMBTU during the optimization study.
- 4) The NO_x emission limit of 0.07 lbs/MMBTU is waived for the specific SNCR optimization study activity as detailed in Condition 2 above not to extend more than 365 days after the initial compliance demonstration. However, the nitrogen oxide emissions rate shall never exceed 0.10 lbs/MMBTU, during or after the SNCR optimization study. If the optimization study indicates a need to re-evaluate the NO_x emission limit set forth in the permit, the Kentucky Division for Air Quality will issue a notice to allow the public to have no less than 30 days review and comment period on any changes imposed by the Kentucky Division for Air Quality at that time.
- 5) The CFB shall be performance tested initially for compliance with the emission standards for particulate matters (PM and PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), fluoride (as HF), lead (Pb), beryllium (Be), mercury (Hg), and hazardous air pollutants. Appropriate test methods shall be used (see 401 KAR 50:015).
- 6) After the initial compliance test as stated above, continuing compliance with the emission standards shall be determined by continuous emission monitors for Opacity, NO_x, and SO₂. Ongoing compliance with the emission standard for CO shall be determined by monitoring for CO₂ or Oxygen and comparing these monitored values to the initial compliance test baseline values. Ongoing compliance with the emission standards for Lead, Fluorides (as HF), Beryllium, Mercury and Hazardous Air Pollutants (HAPs) shall be based on quarterly fuel analyses and calculations using established baseline factors developed during the initial compliance test.

SECTION E – SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS

Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a) Date, place as defined in this permit, and time of sampling or measurements.
 - b) Analyses performance dates;
 - c) Company or entity that performed analyses;
 - d) Analytical techniques or methods used;
 - e) Analyses results; and
 - f) Operating conditions during time of sampling or measurement;

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]

3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
 - a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
 - b) Have access to and copy, at reasonable times, any records required by the permit:
 - i) During normal office hours, and
 - ii) During periods of emergency when prompt access to records is essential to proper assessment by the division;
 - c) Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
 - i) During all hours of operation at the source,
 - ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii) During an emergency; and
 - d) Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
 - i) During all hours of operation at the source,
 - ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii) During an emergency.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS
(CONTINUED)**

4. No person shall obstruct, hamper, or interfere with any division employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the division's Hazard Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The reports are due within 30 days after the end of each six-month reporting period that commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Hazard Regional Office concerning startups, shutdowns, or malfunctions as follows:
 1. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
- b. In accordance with the provisions of 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by general condition 6 a. above) to the Division for Air Quality's Hazard Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by general condition F.5.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS
(CONTINUED)**

7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC)(or an approved alternative) to the Division for Air Quality's Hazard Regional Office and the U. S. EPA in accordance with the following requirements:
- a) Identification of each term or condition of the permit that is the basis of the certification;
 - b) The compliance status regarding each term or condition of the permit;
 - c) Whether compliance was continuous or intermittent; and
 - d) The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to Regulation 401 KAR 50:035, Section 7 (1) (c), (d), and (e);
 - e) For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f) The certification shall be postmarked by the thirtieth (30th) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. Annual compliance certification should be mailed to the following addresses:

Division for Air Quality
Hazard Regional Office
233 Birch Street, Suite 2
Hazard, Kentucky 41701-2179

U.S. EPA Regional IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS**(a) General Compliance Requirements**

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be (a) violation(s) of State Regulation 401 KAR 50:035, Permits, Section 7 (3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and are grounds for enforcement action including but not limited to the termination, revocation and re-issuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, re-issuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12 (2) (c);
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - d. If any additional applicable requirements of the Acid Rain Program become applicable to the source;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Re-openings shall be made as expeditiously as practicable. Re-openings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within ninety (90) days after the date of notice as specified in Regulation 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]
11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7(3)(g)]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of the U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(3)(b)5]
14. Nothing in this permit shall alter or affect the authority of the U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]
15. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the emissions units listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.
16. Fugitive emissions shall be controlled in accordance with Regulation 401 KAR 63:010.

SECTION G - GENERAL CONDITIONS (CONTINUED)

17. The permittee may conduct test burns of materials other than those listed in the permit without a construction permit or a reopening of this permit provided that:
 - a) Notification is provided to the division at least 30 days prior to initiation of the test burning of the material;
 - b) The source complies with all applicable regulations and emission limitations;
 - c) The permittee agrees to perform such additional testing as may be required by the division;
18. Emission limitations listed in this permit shall apply at all times except during periods of startup, shutdown, or malfunctions, and opacity limitations listed in this permit shall apply at all times except during periods of startup and shutdown in accordance with Regulation 401 KAR 50:055, provided the permittee complies with the requirements of Regulation 401 KAR 50:055.
19. Pursuant to Section VII 2(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office and the Division's Technical Services Branch. Pursuant to Regulation 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

SECTION G - GENERAL CONDITIONS (CONTINUED)

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.
- (d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
 2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Hazard Regional Office in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
 3. Pursuant to 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the division upon a satisfactory request showing that an extension is justified.
 4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.

SECTION G - GENERAL CONDITIONS (CONTINUED)

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration test on the affected facilities for particulate matters (PM and PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), fluoride (as HF), lead (Pb), beryllium (Be), mercury (Hg), in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Conditions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The source shall comply with all requirements and conditions of the Title IV, Acid Rain Permit (A-00-7, ATTACHMENT D) and the Phase II permit application (including the Phase II NO_x compliance plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of Regulation 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1, above, are in addition to any emergency or upset provision(s) contained in an applicable requirement.

SECTION G - GENERAL CONDITIONS (CONTINUED)

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA 22116-3346

2. If requested, submit additional relevant information by the division or the U.S. EPA.

(h) Ozone Depleting Substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the record-keeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

N/A

SECTION J - ACID RAIN PERMIT

Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

PHASE II ACID RAIN PERMIT

Plant Name:	Kentucky Mountain Power, LLC	
Plant Location:	6626 West Highway 80, Knott County, Kentucky	
Owner:	Kentucky Mountain Power, LLC	
Mailing Address:	2810 Lexington Financial Center, Lexington, Kentucky 40507	
Region:	Appalachian Intrastate	County: Knott
Effective Date	From:	To:

Permit Number: A-00-006

AFS Number: 21-119-00037

SIC Code: 4911

ORIS Code: 55289

Issued day of 2001

John E. Hornback, Director

Robert W. Logan
Commissioner

SECTION I - ACID RAIN PERMIT (Continued)

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application.
- 5) Summary of Actions

1. Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality issues this permit pursuant to Regulations 401 KAR 50:035, Permits, 401 KAR 50:072, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

SECTION I - ACID RAIN PERMIT (continued)

Plant Name: Kentucky Mountain Power, LLC
Affected Unit: 01 - CFB#1

2. SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2001	2002	2003	2004	2005
Tables 2, 3 or 4 of 40 CFR Part 73	N/A *	N/A *	N/A *	N/A *	N/A *

NO_x Requirements	
NO_x Limits	N/A**

* For newly constructed units there are no SO₂ allowance allocations per USEPA Acid Rain Program.

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76.

SECTION I - ACID RAIN PERMIT (continued)

Plant Name: Kentucky Mountain Power, LLC
Affected Unit: 02 – CFB#2

SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2001	2002	2003	2004	2005
Tables 2, 3 or 4 of 40 CFR Part 73	N/A *	N/A *	N/A *	N/A *	N/A *

NO_x Requirements	
NO_x Limits	N/A**

* For newly constructed units there are no SO₂ allowance allocations per USEPA Acid Rain Program.

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76.

SECTION I - ACID RAIN PERMIT (continued)

3. Comments, Notes, and Justifications:

The two (2) Circulating Fluidized Bed Boilers (CFBs), units 01 and 02 will be constructed after the SO₂ allocation date; therefore these units will have no SO₂ allowances allocated by U.S. EPA and must obtain offsets.

The two (2) Circulating Fluidized Bed Boilers (CFBs), units 01 and 02 do not have applicable NO_x limits set by 40 CFR part 76.

4. Permit Application: Attached

The Phase II Permit Application is a part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

5. Summary of Actions:

Present Action:

Final Phase II Permit (# A-00-006) has been issued on May 7, 2001.